

CLAIMS

1. An instrument for breaking-up a sample, comprising:
a cylindrical body having a through hole opening in both ends thereof;
5 a filter member installed in one end of said cylindrical body within said through hole; and
a pressing member to be operatively inserted into said hole of said cylindrical body from the other end thereof so as to be slidable therethrough in a sealed manner, wherein
10 a force is exerted on said pressing member so that said pressing member presses said sample placed between said pressing member and said filter member against said filter member and thereby said sample is forced to pass through said filter member and is thus broken-up.
- 15 2. A sample breaking-up instrument in accordance with claim 1, in which said force to be exerted on said pressing member is a centrifugal force.
3. A sample breaking-up instrument in accordance with claim 1 or 2, in which said pressing member is provided
20 with a protrusion extending radially on an end surface thereof to face to the sample, wherein said pressing member is able to be pressed while being rotated with respect to said filter member so that said sample is mashed before being forced to pass through said filter member by said
25 force.
4. A sample breaking-up instrument in accordance with any one of claim 1 through 3, in which said pressing member is provided with a groove extending circumferentially on an

outer surface thereof in the vicinity of its top end located in the sample side, and an O-ring is fitted in said groove.

5. A sample breaking-up instrument in accordance with any one of claims 1 through 4, in which said filter member has a plurality of through holes, each having a diameter of a cross section orthogonal to an axis in a range of 50 to 200 micrometer.

6. A sample breaking-up instrument in accordance with any one of claims 1 through 5, in which said filter member defines a plate having a thickness in a range of 1 to 3 millimeters.

7. A sample breaking-up instrument in accordance with any one of claims 1 through 6, in which said cylindrical body is provided with a drop-out stop for preventing said filter member from dropping out of said cylindrical body, in the vicinity of the opening located in said one end thereof.

8. A method for breaking-up a sample, comprising the steps of:

20 preparing a cylindrical body equipped with a filter member in one end of a through hole formed therein so as to open in both ends;

placing said sample into said hole of said cylindrical body from the other opening end thereof;

25 operatively inserting a pressing member into said hole of said cylindrical body from said other opening end thereof so as to be slidable therethrough in a sealed manner; and

exerting a centrifugal force on said pressing member so that said pressing member presses said sample against said filter member to thereby force said sample to pass through said filter.

- 5 9. A sample breaking-up method in accordance with claim 8,
in which said pressing member is provided with a protrusion
extending radially on an end surface thereof so as to face
to a sample, and said method further comprises a step of
mashing said sample by pressing said pressing member while
10 rotating it with respect to said filter member before
exerting the centrifugal force on said pressing member.